Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (cancelled)

2. (cancelled)

3. (currently amended) [[An]] The resettable high accuracy analog integrator circuit according to Claim [[1]]15 wherein, at the first mode:

a[[n]] first operational amplifier (Opamp) (301) having an inverting and a non-inverting input, that provides an output voltage that is fed back via a first resistor (401) to said inverting input of said first Opamp (301), ~~when~~ while the said non-inverting input of said first Opamp (301) is grounded,

output voltage (error voltage) of the said ~~amplifier~~ first Opamp (301) is magnified over the first resistor (401) and a second resistor (402), and applied ~~by magnifying~~ to the inverting input of ~~another~~ a second Opamp (302) ~~also having a non-inverting input~~ through a third resistor (403)[[,]];

the output voltage of this second Opamp (302) is fed back via ~~another~~ a fourth resistor (403) having a same resistance with the third resistor (403) to said inverting input,

the output voltage of said second [[o]]Opamp is loaded to a capacitor (501).

4. (currently amended) [[An]] The resettable high accuracy analog integrator circuit (1) according to Claim [[3]]15 wherein, at the second mode:

the input voltage [[is]] as a function of time is applied to the inverting input of first Opamp (301) through at least one input resistor R(τ) (404) and a first junction (208) ~~when~~ while the non-inverting input of said first Opamp (301) is ~~not~~ grounded via a second junction (207) and a second resistor 402,

an output of said first Opamp (301) is connected to one electrode of a Capacitor (502) and the other electrode ~~in turn~~ of said Capacitor (502) is connected to input resistor R(τ) (404)[[,]] via the first junction (208);

while the magnified error voltage loaded to capacitor (501) is connected to the non-inverting input of said first Opamp (301) over a first switch (105) and a first resistor (401) and the second junction (207) in order to create the virtual earth on the first junction (208), and the said non-inverting input of said first Opamp (301) grounded over the second junction (207) and the second resistor (402) thereby demagnifying the drift voltage error. ~~the voltage loaded to a Capacitor (501) when non-inverting input of said Opamp (301) is grounded by magnified is applied to non-inverting input of Opamp (301) through a resistor (401) by means of a switch (105) by demagnifying by the amount magnified and the results of integration are transferred to a coordinator circuit (6).~~

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (currently amended) [[A]]The resettable high accuracy analog integrator circuit according to Claim [[3]]15, wherein at the first mode, initial conditions are loaded to the capacitor (502) connected to the input junction (203) through a second switch (112). ~~resistor (404).~~

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (new) A resettable high accuracy analog integrator circuit working in two modes and:

in the first mode detecting a drift voltage error, magnifying, sign inverting and storing it;

in the second mode compensating for the drift voltage error while performing integration and comprising switches for necessary transitions between the first mode and the second mode,

wherein at the first mode,

before the integration process starts, the resettable high accuracy analog integrator circuit is open ended and a drift voltage of the resettable high accuracy analog integrator circuit is taken and magnified,

the magnified drift voltage is inverted by an inverter circuit,

the inverted voltage is loaded to a capacitor,

wherein at the second mode,

when integration starts, the loaded voltage, after demagnification, is applied to a non-inverting input of the resettable high accuracy analog integrator circuit, in order to create a virtual earth on the inverting input thereby compensating for the drift voltage error.